

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,863,792 B1
DATED : March 8, 2005
INVENTOR(S) : Madou et al.

Page 1 of 3

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title page,

Item [56], **References Cited**, OTHER PUBLICATIONS, please delete

"Hitchman, M. et al., "Evaluation of Iridium Oxide Electrodes Formed by Potential Cycling as pH Probes", . Analyst, 113 35 (1988). " and insert -- Hitchman, M. et al., "Evaluation of Iridium Oxide Electrodes Formed by Potential Cycling as pH Probes", Analyst, 113, 35 (1988). --.

Item [57], **ABSTRACT**, please delete **"A conductive oxide solid formed through an electrochemical process. The resulting solid predominantly contains oxides of the highest oxidation state. Additionally, the solid can be thick, uniform, stable across a wide range of acidity and temperature, fully hydrated, and conductive with a very low redox potential. A preferred embodiment is an iridium solid formed at high temperature in molten carbonate, said solid containing intercalated lithium. The solid has application as an electrode with reduced drift. An electrochemical acidity sensor is disclosed which pairs an electrode bearing the solid with a reference electrode. Additionally, sensor apparatuses for measuring carbon dioxide and other materials as well as methods for measuring materials using an embedded acidity sensor are disclosed."** and insert -- **A conductive oxide solid**

formed through an electrochemical process. The resulting solid predominantly contains oxides of the highest oxidation state. Additionally, the solid can be thick, uniform, stable across a wide range of acidity and temperature, fully hydrated, and conductive with a very low redox potential. A preferred embodiment is an iridium oxide solid formed at high temperature in molten carbonate, said solid containing intercalated lithium. The solid has application as an electrode with reduced drift. An electrochemical acidity sensor is disclosed which pairs an electrode bearing the solid with a reference electrode. Additionally, sensor apparatuses for measuring carbon dioxide and other materials as well as methods for measuring materials using an embedded acidity sensor are disclosed. --.

Column 1,

Line 34, please delete "(MOES)" and insert -- (MOEs) --.

Column 2,

Lines 53-54, please delete "ionizable- OH" and insert -- ionizable -OH --.

Line 62, please delete "-H" and insert -- -OH --.

Column 3,

Line 43, please delete "steps, for" and insert -- steps for --.

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Column 4,

Line 10, please delete "purity>99%" and insert -- purity >99% --.

Line 41, please delete "Li+ions" and insert -- Li+ ions --.

Line 52, please delete "potental" and insert -- potential --.

Column 6,

Line 1, please delete "oxygen,from" and insert -- oxygen from --.

Column 7,

Line 9, please delete " $\text{O}_2(\text{diss.}) + 2\text{CO}_3^{2-} = 2\text{O}_2^{2-\square} + 2\text{CO}_2$ " and insert -- $\text{O}_2(\text{diss.}) + 2\text{CO}_3^{2-} = 2\text{O}_2^{2\square} + 2\text{CO}_2$ --.

Column 8,

Line 15, please delete " $\text{HNO}_3^- \text{HCl}^H_2\text{O}$ " and insert -- $\text{HNO}_3^- \text{HCl}^- \text{H}_2\text{O}$ --.

Column 10,

Line 16, please delete "by-a" and insert -- by a --.

Line 28, please delete "Leydenjar-like" and insert -- Leyden-jar-like --.

Line 30, please delete "change:" and insert -- change, --.

Column 14,

Line 8, please delete "Conosion" and insert -- Corrosion --.

Line 27, please delete "5,86(1981)." and insert -- 5, 86 (1981). --.

Line 31, please delete "131,1089" and insert -- 131,1089 --.

Line 32, please delete "39,137" and insert -- 39,137 --.

Line 56, please delete "211(1998)." and insert -- 211 (1998). --.

Line 67, please delete "462,127" and insert -- 452,127 --.

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Column 15,

Line 6, please delete ")1/96) " and insert -- (1/96). --.

Signed and Sealed this

Twenty-fourth Day of May, 2005

A handwritten signature in black ink, appearing to read "Jon W. Dudas". The signature is stylized with a large, looped initial "J" and a cursive "Dudas".

JON W. DUDAS
Director of the United States Patent and Trademark Office